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July 8, 2004



# <u>VIA HAND DELIVERY</u>

Ms. Marlene H. Dortch Secretary Federal Communications Commission The Portals 445 12th Street, S.W. Washington, D.C. 20554 RECEIVED

JUL 1 5 2004

Federal Communications Commission
Office of Secretary

Re: MB Docket No. 04-207

Dear Ms. Dortch:

On behalf of Cox Communications, Inc. ("Cox"), enclosed for filing in the above-referenced proceeding is a study entitled "Cable Program Tiering: A Decision Best and Properly Made by Cable System Operators, Not Government Regulators," by William P. Rogerson, Professor of Economics at Northwestern University.

On March 25, 2004, James O. Robbins, Cox's President and CEO, testified before the Senate Commerce Committee in a hearing on "Escalating Cable Rates: Causes and Solutions." In conjunction with his written testimony, Mr. Robbins submitted the attached study by Professor Rogerson for inclusion in the hearing record. As the U.S. General Accounting Office had earlier concluded, increases in sports programming costs have been a key driver in increasing expanded basic cable rates. In reaction to this phenomenon, some policy makers have suggested that perhaps cable operators should be required to sell expensive sports programming on an a la carte basis or, at least, offer such programming in a separate tier. To help inform the debate over this issue, Cox asked Professor Rogerson, former Chief Economist of the FCC, to prepare an economic analysis examining two related issues: (1) Should government *require* cable systems to offer certain sports channels on a different tier of service than the expanded basic tier? and (2) Should government *prohibit* cable systems from offering certain sports channels on a different tier of service than the expanded basic tier? Applying standard economic theory, Professor Rogerson's answer to both questions is "no."

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<sup>&</sup>lt;sup>1</sup> United States General Accounting Office, GAO-04-8, Report to the Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate – Issues Related to Competition and Subscriber Rates in the Cable Television Industry 21-25 (Oct. 24, 2003).

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Professor Rogerson concludes that cable system operators (with or without market power) have economic incentives to deliver video programming in ways that will provide maximum value to their customers. He further observes that "determining the efficient pattern of bundling will generally be a complex issue which depends on difficult to determine market information such as customer preferences and the technology of production." Professor Rogerson concludes that, "[i]n most cases, firms in the industry will be much better informed about these sorts of factors than government regulators." Accordingly, "[t]he current 'handsoff' regulatory policy is consistent with and supported by basic economic theory."

Cox urges the Commission to embrace Professor Rogerson's economic analysis and report to Congress that consumer welfare is best served by leaving decisions about how to package cable and satellite programming (i.e., whether in tiers or on an a la carte basis) to multichannel video distributors, not government regulators.

Pursuant to the Commission's Public Notice in this proceeding, an original and four copies of this filing are being submitted to the Secretary's office for the above-captioned docket, and a copy also is being provided to Mr. Ben Golant of the Media Bureau.

Respectfully submitted,

James A. Hatcher

cc: Ben Golant, Esq.

<sup>&</sup>lt;sup>2</sup> William P. Rogerson, Cable Program Tiering: A Decision Best and Properly Made by Cable System Operators, Not Government Regulators 10 (Nov. 10, 2003).

 $<sup>^3</sup>$  Id.

<sup>&</sup>lt;sup>4</sup> *Id*.

# CABLE PROGRAM TIERING: A DECISION BEST AND PROPERLY MADE BY CABLE SYSTEM OPERATORS, NOT GOVERNMENT REGULATORS

November 10, 2003

by

William P. Rogerson\* Professor of Economics Northwestern University

\*This study was prepared for and funded by Cox Communications Inc.

#### 1. INTRODUCTION

At the moment, most cable TV systems include sports programming such as ESPN and many regional sports networks(RSNs) as part of the expanded basic tier of programming for which subscribers pay a single monthly fee. The decision of which tier to place this programming in is not regulated by government, i.e., it would be perfectly legal for cable systems – if they were able to negotiate contracts with programmers that permitted this – to offer sports programming (or almost any other type of programming for that matter) on a separate program tier for which subscribers were charged an additional price.

An issue that has received attention from policy makers, industry participants, and the press in the last year is that the license fees that cable systems pay for certain sports programming have been increasing considerably faster than the license fees they pay for non-sports programming, so that the cost of sports programming has begun to consume a very significant and ever-growing share of total programming cost. For example, at a recent investor's conference, James Robbins, the CEO of Cox, reported that it pays \$2.61 per subscriber per month for ESPN, which is more than the cost of the seven top-rated non-sports ad-supported networks combined. He also reported that ESPN was asking for a 20% annual increase in its fees from Cox while Fox Sports has proposed a 35% increase next year. <sup>1</sup> In its recent report on prices in the cable TV industry the GAO concluded:

"Almost all of the cable operators we interviewed cited sports programming as a major

<sup>&</sup>lt;sup>1</sup>New York Times, "Sports Fan is the Prize, of the Victim in Cable Fight," October 6, 2003, page C1 and C4.

contributor to higher programming costs. On the basis of our analysis of Kagan World Media data, the average license fees for a cable network that shows almost exclusively sports-related programming increased by 59 percent in the 3 years between 1999 and 2002. Conversely, for the 72 nonsports networks, the average increase in license fees for the same period was approximately 26 percent. Further, the average license fees for the sports networks were substantially higher than the average for other networks."

The increasing expense of sports programming has raised the issue of whether or not it might be desirable for cable systems to offer certain high priced sports programming either as individual channels (this is often referred to as offering the channels "a la carte") or as part of a separate program tier consisting perhaps of a small number of sports channels.<sup>3</sup> Rationales for this suggestion include both the idea that it may not be fair or economically sensible to "force" viewers who are not interested in sports to pay for this high-priced programming, and the idea that producers of sports programming might somehow be induced to keep prices lower if their products were offered on a separate tier.

This has, in turn, raised two different public policy issues.

<sup>&</sup>lt;sup>2</sup>See GAO, Issues Related to Competition and Subscriber Rates in the Cable Television Industry, GAO-04-8, October 2003 at 22, ("GAO Study").

<sup>&</sup>lt;sup>3</sup>Offering sports channels a la carte or as part of a small tier of sports channels would probably have much the same effect and I will not distinguish between these two alternatives in this paper. To ease the exposition I will generally use the term "offer programming on a separate tier" to refer either to offering the programming a la carte or offering it as part of a group of channels outside of the expanded basic tier for an extra fee.

Issue #1: Should government require cable systems to offer certain sports channels on a different tier of service than the expanded basic tier?

Issue #2: Should government prohibit cable systems from offering certain sports channels on a different tier of service than the expanded basic tier?

The reason that the first issue has arisen is of course obvious. If it is the case that consumers would be better off if these channels were offered on a separate tier and if it is the case that this outcome will never occur so long as cable systems are not required to do so, then a case for requiring cable systems to do this could be made. Senator John McCain, the Chairman of the Senate Commerce Committee, has raised this issue in recent committee hearings when he stated:

"While not the only cause of cable rate increases, soaring sports programming costs passed along to all expanded basic cable subscribers certainly appear to play a role. I fail to understand why any customer should be forced to pay for programming they do not want. I look forward to hearing the thoughts of our witnesses on the merits of a la carte pricing or tiering of cable channels to give consumers more control over their cable bill."

He also asked the GAO to produce a report on pricing in the cable TV industry and one of the

<sup>&</sup>lt;sup>4</sup>See Statement of Senator John McCain, Chairman, Senate Committee on Commerce, Science, and Transportation, Full Committee Hearing on Media Ownership: Video Services, May 6, 2003.

issues he specifically asked it to address in its report was the issue of "why cable operators group networks into tiers, rather than package networks so that customers can purchase only those networks they wish to receive."

The reason that the second issue has arisen is perhaps not quite so obvious. In response to rising sports programming license fees, some cable systems have begun to consider whether or not it would make sense for them to place certain sports channels on separate tiers of service which subscribers would pay extra for. Producers of sports programming have generally reacted quite negatively to this idea. Besides indicating that they would resist such proposals in any negotiations between themselves and cable systems, some programmers have also made the point that they believe that consumers would be harmed if cable systems were able to negotiate such agreements with programmers. If it is true that consumers would be harmed if cable systems offered sports programming on a separate tier of service, and if it is true that cable systems are seriously considering doing this, then a case could be made for prohibiting cable systems from offering sports programming on separate tiers of service. This is why the second issue has arisen.

One particular programmer that has made arguments along this line is ESPN.

<sup>&</sup>lt;sup>5</sup>See GAO Study, October 2003 at 1.

<sup>&</sup>lt;sup>6</sup>See for example *New York Times*, "Sports Fan is the Prize, or the Victim in Cable Fight," October 6, 2003, pages C1 and C4. It describes ESPN's and News Corp.'s reaction to the suggestion of James Robbins, the CEO of Cox, that one solution to rising sports fees might be to offer some sports programming on separate tiers of service. It quoted Peter Chernin, president and chief operating officer of News Corp. which produces many regional sports networks as stating that the idea of tiering was "a nonstarter." Robert A Iger, president and chief operating officer of Disney, which owns ESPN, was quoted as describing Mr. Robbin's comments as "comic relief."

ESPN has publically distributed a study by Economists Inc. entitled "Consumer, Operator, and Programmer Benefits from Bundling Cable Networks" that argues that bundling packages of networks together can in many cases be efficient and benefit both consumers and firms. A sheet of talking points that ESPN has distributed along with this paper states "A-la-carte would be bad for consumers - People will pay more and get less." Undoubtedly one of ESPN's main goals in making these arguments is to dissuade policy makers from adopting regulations that would require cable systems to offer ESPN on a separate tier of service. However, ESPN also appears to be suggesting that policy makers should consider prohibiting or at least strongly discouraging cable systems from offering ESPN on a separate tier of service in the event that they want to do this.

Cox Communications has asked me to provide my own economic analysis of the issue of whether or not it would ever make sense for policy makers to prohibit or at least strongly discourage cable systems from offering certain high priced sports networks such as ESPN on separate tiers of service, and, in particular, to specifically consider whether the Economists Inc. study distributed by ESPN provides any compelling evidence or arguments in support of this proposition.

My conclusion is that it would be a bad policy for government to either prohibit or discourage a cable system from offering programming on a different tier of service than expanded basic if the cable system determined that this was a good business strategy and was

<sup>&</sup>lt;sup>7</sup>Economists Inc., Consumer, Operator, and Programmer Benefits from Bundling Cable Networks, July 2002, ("Economists Inc. Study").

<sup>&</sup>lt;sup>8</sup>Undated sheet entitled "ESPN Key Points" which was attached to copies of the *Economists Inc.* (2002) study distributed to members of Congress and their staffs.

able to negotiate an agreement with the producer of the programming which permitted this. I base this conclusion on four points. First, standard economic theory provides a compelling argument that government's current policy of not regulating the tiering structure of programming is the most desirable policy. Standard economic theory suggests that some bundling and tiering of programming is likely to be efficient, that the precise form of the efficient tiering scheme is likely to depend in complex ways on market conditions that cable systems will understand much better than regulators, and that cable systems will generally have an incentive to choose efficient tiering schemes because cable systems can charge subscribers higher prices by providing them with packages of services that they value more highly.

Second, a well accepted and standard business practice for most cable systems is to offer high cost special interest programming on separate tiers of service instead of including them in expanded basic. For example, almost all cable systems offer premium movie channels and certain premium sports packages on separate tiers of service. The common sense reason for this is simply that when the cost of any particular special interest programming grows too high, the transactions costs of separately selling subscriptions to the program are outweighed by the difficulties that are caused by forcing people to buy an expensive product they may not want. The fact that cable systems have become interested in offering certain sports channels on separate tiers as their costs have skyrocketed is therefore completely consistent with normal well-accepted business practices in this industry that make good economic sense.

My third point is that I do not believe that the Economists Inc. study distributed by ESPN provides any specific arguments or evidence to suggest that government should prohibit a cable system from offering a sports channel on a separate tier if the cable system wanted to and

was able to negotiate an agreement with a programmer that permitted this. The thrust of the paper by Economists Inc. is to argue that government should not require cable systems to offer sports programming on a separate tier because they believe that cable systems will generally have the incentive to choose an efficient tiering structure. Nowhere in their paper do they attempt to explicitly argue that it would be a good policy for government to prohibit or discourage a cable system from offering sports programming on a separate tier of service if the cable system wanted to do this. This would, in fact, be inconsistent with their central point which is that cable systems ought to have a reasonably good incentive to choose the efficient tiering structure.

My fourth point is that an economic analysis of the nature of the bargaining problem between programmers and cable systems suggests that cable systems might be able to provide programmers with better incentives to keep programming prices low by placing their programming on a separate tier of service instead of bundling it together with large numbers of other programs. One incentive for a programmer to keep its license fees low is created by the fact that cable systems will pass through some of these license fee increases to subscribers in the form of higher subscription prices and this will therefore reduce demand for the programmer's product. It is straightforward to show using standard economic theory that this pass-through effect is muted when a program is bundled together with many other programs. Therefore, to some extent, cable systems may be able provide sports programmers with more powerful incentives to keep their programming costs lower by placing their products in a separate tier and allowing consumers to directly respond to price increases by not purchasing the programming if they wish.

Since the main focus of my paper is on the policy issue of whether or not it would ever make sense for government to prohibit or at least discourage a cable system from placing certain programming on a separate tier if it wanted to do so, I have not focused specifically on the related issue of whether or not it might ever make sense for government to require cable systems to place certain programming on a separate tier even if they wanted to include it in expanded basic. However, it should be clear that the implication of the economic theory I outline above is that it would also generally be a bad idea for government to consider this type of regulatory intervention. Since economic theory suggests that cable systems should have a relatively good incentive to bundle and package programming into tiers in ways that will provide maximum value to their customers, there is in general no "market failure" that requires government intervention. Therefore I believe that government's current policy of essentially not regulating most program tiering decisions of cable systems is generally the correct policy.

My paper is organized as follows. I provide some general background information on program tiering in Section 2. Then I explain each of the four points I list above in Sections 3-6. Finally I draw a brief conclusion in Section 7.

## 2. BACKGROUND

Cable TV systems typically offer subscribers access to a group of approximately 60 channels of programming often referred to as the expanded basic programming tier for a single monthly fee. This group of channels is divided into the basic service tier (BST) which consists of primarily local broadcast stations and the major cable program service tier (CPST) which constists of the remaining channels. Cable TV systems are required by regulation to sell

subscriptions to the BST without requiring subscribers to purchase any other channels. With this one exception mandated by regulation, subscriptions to subgroups of channels or individual channels within the expanded basic tier are not sold separately. Rather, to subscribe to any channel or subgroup of channels within the expanded basic tier, consumers must subscribe to the entire tier. Subscribers generally can also purchase access to various additional channels for extra fees. Often many of the additional channels are also packaged into tiers instead of being made individually available. However, some channels of programming that are unusually expensive such as premium movie channels or certain premium sports channels are sold individually.

Except for the requirement that cable systems offer access to the BST, the way that cable TV firms design their various tiers of programming is largely unregulated.<sup>10</sup> That is, cable systems are basically free to decide which tier of service to place any channel in, so long as they are able to negotiate contracts with programmers that permit this. Government essentially does not interfere with whatever arrangements cable systems and programmers are able to negotiate with one another for the tiering of programs.

In this paper I will use the terms "offer programming on a separate tier" or "unbundle programming" synonymously to mean offering programming either by itself or as part of larger

<sup>&</sup>lt;sup>9</sup>The price of the BST is subject to regulation unless the cable system faces competition from another wireline provider of video services. The FCC reports that such competition currently exists in only 2% of cable markets. See FCC, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming: Ninth Annual Report, MB Docket No. 02-145, December 31, 2002 at para. 115.

<sup>&</sup>lt;sup>10</sup>One additional requirement is that the cable system must require consumers to subscribe to the BST in order to subscribe to any other channels.

package of programs for a separate fee over and above the fee paid for access to the expanded basic tier.

# 3. THE ECONOMICS OF WHETHER OR NOT GOVERNMENT SHOULD REGULATE THE PROGRAM TIER STRUCTURE OF CABLE SYSTEMS

## A. The General Argument

The current "hands off" regulatory policy is consistent with and supported by basic economic theory. The relevant economic theory can be summed up in three principles.

First, it is likely that some bundling is efficient. While it is true that bundling can harm consumers by reducing their choice, it can also benefit consumers if there are extra transactions marketing and equipment costs associated with selling each channel separately that can be avoided by bundling. Second, determining the efficient pattern of bundling will generally be a complex issue which depends on difficult to determine market information such as consumer preferences and the technology of production. In most cases, firms in the industry will be much better informed about these sorts of factors than government regulators. Third, it seems likely that profit maximizing firms will generally have an incentive to bundle products efficiently.

This is simply because they can charge consumers more money by providing them with

<sup>&</sup>lt;sup>11</sup>See the *Economists Inc. Study*, July 2002 for a much fuller discussion of the potential benefits of bundling.

<sup>&</sup>lt;sup>12</sup>For example, in its recent report on cable industry prices, the GAO specifically investigated the issue of whether consumers might be made better off if cable systems were required to unbundle more programming and decided that it could draw no conclusion on this issue. The report states: "Thus, there are a variety of factors that make it difficult to ascertain how many consumers would be made better off and how many would be made worse off under an a la carte approach." See *GAO Study*, October 2003 at 37.

packages of products that better fill their needs. Since firms will be generally be much better able to determine what sorts of bundling arrangements might produce efficiencies and since they will generally have an incentive to adopt efficient bundling arrangements, it therefore makes sense to delegate this decision to firms.

# B. Regulation of Bundling and Monopoly Power

Except for the BST, government essentially does not regulate the prices that cable systems charge to subscribers. It is probably fair to say that there is a fairly wide range of views among economists, policy makers, consumer activists, and industry representatives regarding how much market power is possessed by cable systems. Therefore it is interesting ask whether or not and how the economic argument that regulation of bundling is unnecessary is related to the issue of whether or not cable TV systems have market power or not. I will make two basic points in this regard.

First, and most important, the conclusion that there is no general need for government regulation of bundling does not depend critically on the precise level of competition that exists in this industry. This is because even a firm with market power will generally want to supply its customers with their most preferred mix and packaging of products because it will be able to charge consumers the highest possible price by so doing. Therefore, while various groups may disagree on the extent to which cable systems have market power, they should all still be able to agree that there is no good case for extensive regulation of program tiering structure.

Second, and related, the idea that regulation of program tiering could somehow substitute for regulation of market power is simply incorrect. People who believe that cable systems have

so much market power that their prices should be regulated should still not be in favor of regulating the program tiering structure of cable systems. If a firm has market power, it will be able to charge high prices for whatever bundles of products that it sells. Allowing government to regulate how firms with market power bundle products will only increase the likelihood that the firms do not offer the most efficient bundle of products, but will not prevent them from charging monopoly prices for whatever bundles of products they do sell.

# C. Bundling and Price Discrimination

The above two subsections have presented the argument that, to the extent that bundling is a way to reduce transactions and marketing costs, it is likely that cable systems will have appropriate incentives to correctly balance the costs and benefits of bundling and therefore choose efficient levels of bundling. There is also one other motivation that firms may have for bundling products together that could possibly apply to the case of cable TV. This motivation for bundling is often referred to as the price discrimination motive since it is related to a firm's motivation to try to charge different consumers different prices for the same product depending upon what they are willing to pay for it.<sup>13</sup> The essential idea is that when there is some negative

<sup>&</sup>lt;sup>13</sup>See William James Adams and Janet L. Yellen, "Commodity Bundling and the Burden of Monopoly," *The Quarterly Journal of Economics*, August 1976, 90, 475-498; Richard Schmalensee, "Gaussian Demand and Commodity Bundling," *The Journal of Business*, January 1984, 57, S211-S230; R. Preston McAfee, John McMillan and Michael D. Whinston, "Multiproduct Monopoly, Commodity Bundling, and Correlation of Values," *The Quarterly Journal of Economics*, May 1989, 104, 371-383; and Gregory Crawford, "The Discriminatory Incentives to Bundle: The Case of Cable Television," October 7, 2002, unpublished manuscript, Duke University.

correlation between individual consumers' valuation of different products, <sup>14</sup> that a firm can sometimes charge higher prices to everyone by bundling the goods together.

If this is the motivation for bundling, the issue of whether or not firms will always pursue bundling strategies that benefit consumers is somewhat murkier. In particular it is easy to create examples where bundling can make consumers worse off but equally easy to create examples where bundling makes consumers better off. I think a fair characterization of the consensus view of economists at this point is that they simply do not know whether this type of bundling is likely to benefit or harm consumers. However, since regulation is costly and can create other distortions, the fact that this type of bundling cannot be shown to be systematically harmful to consumers is sufficient reason for most economists to conclude that there is no reason to regulate this type of bundling.

This is of course a somewhat weaker conclusion than the one that applies to the case of bundling motivated by reduction of transactions costs. For the case of transactions costs, economic theory suggests that firms will generally have an incentive to engage in bundling that benefits consumers. For the case of price discrimination, economists simply cannot say at this point whether there appears to be any systematic tendency for such bundling to make consumers better off or worse off.

<sup>&</sup>lt;sup>14</sup>For example this would be true if on average a viewer with a high willingness to pay for sports programming has a low willingness to pay for nonsports programming and a viewer with a high willingness to pay for non sports programming has a low willingness to pay for sports programming.

<sup>&</sup>lt;sup>15</sup>The Economists Inc. study provides an example in its appendix where bundling is profitable and consumers are made better off by bundling. See Adams and Yellen (1984), Figure 4 at 482 for an example where bundling is profitable and consumers are made worse off by bundling.

However, economic theory still does not suggest a general need for regulation of bundling in this case. Furthermore, it is not clear to what extent the motivation of price discrimination applies to the bundling decisions in cable TV. Therefore, consideration of this alternate motivation for bundling does not appreciably change my conclusion that government is unlikely to be able to make consumers better off by regulating the way that cable systems bundle programming together.

# 4. CABLE SYSTEMS GENERALLY FOLLOW THE PRACTICE OF UNBUNDLING SPECIAL INTEREST HIGH COST PROGRAMMING

A common sense proposition supported by real world behavior is that, when programming is only of interest to a minority of viewers and is extremely costly, that it should be offered at a separate price rather than included in the expanded basic bundle. This is because the cable system needs to charge a fairly high price to recover the costs of the programming but only a fraction of the population would be willing to pay such a high price. The cable system would risk losing too many general viewers with no interest in the costly programming if it included it in the expanded basic package and tried to raise prices enough to cover the cost. In such a case it makes more sense for the firm to charge a separate high price for the programming and only sell it to people willing to pay this high price.

Cable systems appear to already follow this general principle and I believe that policy makers and the public already accept its common sense. In particular the most costly programming that most cable systems show are the premium movie channels, pay per view channels, and premium sports packages and all of these are generally sold separately instead of being included in the expanded basic tier. The fact that cable systems have begun to express an

interest in moving certain sports programming out of the expanded basic tier as the costs of this programming have begun to skyrocket strikes me as being completely consistent with the general practice that cable firms have always followed to place unusually expensive special interest programming on separate tiers of service instead of including it in expanded basic.

# 5. THE ECONOMIST INC. STUDY DOES NOT PROVIDE ANY SUPPORT FOR THE PROPOSITION THAT GOVERNMENT SHOULD PROHIBIT CABLE SYSTEMS FROM OFFERING SPORTS PROGRAMMING ON A SEPARATE TIER OF SERVICE

A careful reading of the study that ESPN has distributed by Economists Inc. reveals that the study provides no specific arguments or evidence in support of the proposition that government could help consumers by forcing cable systems to offer certain programming such as ESPN on expanded basic when the cable systems would rather offer it on a separate tier. This is not a question that the paper even raises, much less answers. Rather, the sole focus of the paper is to support the proposition that government should not force cable systems to offer certain programming such as ESPN on a separate tier of service if the cable systems would rather offer it as part of expanded basic.

The Economists Inc. study makes two basic economic points to support its position.

These are that:

- there are good economic reasons to believe that some amount of bundling of programming is likely to be efficient
- (ii) when cable systems find it profitable to bundle this will also generally benefit consumers.

However, the Economists Inc. study does NOT attempt to argue that circumstances exist where a

cable system might find it profitable to place programming on a separate tier but consumers would be better off if the cable system was forced to offer it as part of the expanded basic tier.

The example in the Appendix to the Economists Inc. study is an example where the cable system finds it profitable to bundle and consumers are also made better off by this. It is NOT an example where the firm finds it profitable to unbundle but consumers would be made better off if the cable system was forced to bundle.

In my opinion arguments (i) and (ii) made by the Economists Inc. study in support of the proposition that government should not require unbundling are simply part of the standard view of the economics profession on the economics of bundling that private firms will generally have an incentive to bundle to the extent this is efficient and there is therefore no need for extensive government regulation. In particular, while this conventional view supports the proposition that there is no need for mandatory unbundling, it also supports the proposition that there is no need for mandatory bundling either. Therefore although the Economists Inc. study did not explicitly address the issue of mandatory bundling, the arguments they have made would generally be consistent with the view that there is no need for mandatory bundling.

## 6. UNBUNDLING MAY HELP REDUCE PROGRAM COSTS

Until this point in the paper I have implicitly taken the view that program costs are exogenously determined and the only question of interest is how a cable firm should arrange its program tiers given the exogenously determined program costs. However, I believe that this viewpoint does not take into account one of the benefits that consumers may receive when programming is placed in a separate tier. Namely, placing programming in a separate tier may

actually reduce the incentives for programmers to attempt to negotiate higher prices with cable systems and therefore also decrease programming costs. At least a share of these cost savings would likely be passed on to consumers and this would provide an extra benefit to consumers,

When a sports programmer considers asking for a price increase, one factor that the programmer considers is that, to some extent, the cable system will pass through some of this increase to subscribers in the form of higher subscription prices and that this will, in turn, reduce demand for the programmer's product. That is, cable system pass-through of programming price increases is a factor which provides the programmer with a stronger incentive to keep its prices lower. It is straightforward to show using completely standard economic models, that the pass through effect for a program will be larger if the program is offered separately at its own price rather than as part of a large package of programs at a single price. The result is that a programmer will charge a lower price for programming if his program is offered on a separate tier than if it is bundled together with other programs. I provide a simple example in an appendix to this paper which illustrates this point. In the example, the cable system finds it profitable to unbundle programs because this induces programers to lower their license fees. Furthermore, consumers also benefit from unbundling because this results in lower subscription prices.

This idea is very intuitive. When a program is offered to consumers as part of a large package, the effect of price changes of any particular program on subscriber demand for the package will be muted and this reduces the incentive of individual programmers to keep prices low. When a program is placed on a separate tier, a programmer experiences a much larger and direct loss of demand when it raises its prices and this provides the programmer with a large and immediate incentive to keep prices lower.

# 7. CONCLUSION

Economic theory suggests that government's current policy of not extensively regulating the program tier structure of cable TV systems is a sensible policy. In particular, it is unlikely that consumers would benefit if government prohibited a cable system from offering certain costly sports programming such as ESPN on a separate tier of service if the cable system wished to do this and was able to negotiate an agreement with a programmer which permitted it.

## **APPENDIX**

### Introduction

The purpose of this appendix is to present a simple example which illustrates the idea that a downstream cable system can provide stronger incentives for upstream programers to charge lower license fees by offering programs on separate tiers instead of bundling them together.

## The Example

I will assume that there are two programmers called programmer 1 and programmer 2 that each sell a different program to a single cable system which in turns sells subscriptions to consumers. I will assume that the inverse demand curve of subscribers for each program is the same and is given by

$$(1) p_i = A - B q_i$$

where p<sub>i</sub> denotes the price of a subscription to program i, q<sub>i</sub> denotes the quantity of subscriptions to program i sold, and A and B are positive constants. I will also assume that any given consumer has the same willingness to pay for each program.<sup>16</sup> This means that the inverse

<sup>&</sup>lt;sup>16</sup>That is, I assume that consumers who are willing to pay a high amount for one program are also willing to pay a high amount for the other program. In fact, I make the extreme assumption that the willingness to pay for programs is perfectly correlated in the sense that each consumer has the same willingness to pay for each program. This assumption implies that there is no price discrimination motive for bundling and therefore considerably simplifies the analysis. The same incentive effect as identified in this example would exist in more complex cases where there is also a price discrimination motive for bundling but the analysis would be considerably

demand curve for the bundle of both products is simply the vertical sum of the two inverse demand curves for each program and is given by

(2) 
$$p_b = 2A - 2 Bq_b$$

where  $p_b$  denotes the price of a subscription to the bundle of both programs and  $q_b$  denotes the number of subscriptions sold. Finally I will assume that all costs of production are zero.

The pricing game occurs in two stages. At the first stage each programmer chooses a license fee that it charges the cable system for its program. Let  $w_i$  be the per subscriber license fee that programmer i charges. Then at stage 2, the cable system chooses its retail price or prices. I will solve this game both for the case where the programs are sold as a bundle for a single price  $p_b$  and where the programs are sold for separate prices,  $p_1$  and  $p_2$ .

# The Case of No Bundling

First suppose that the cable system sells each program separately. As usual, the equilibrium of a two stage game is solved by working backwards. When the programs are sold separately, the cable system plays a separate identical game with each programmer. Begin by considering the cable system's behavior at stage 2 if the license fee w<sub>i</sub> has been set for program i at the first stage. The cable system is a monopolist facing the linear demand curve given by (1) with costs w<sub>i</sub>. It is straightforward to calculate that it chooses the price and quantity given by

more complicated.

(3) 
$$p_i = (A + w_i)/2$$

(4) 
$$q_i = (A - w_i)/2B$$
.

Now consider programmer i's decision at stage 1. Programmer i is a monopolist with demand curve given by (4) and zero costs. It is straightforward to calculate that it chooses a license fee equal to

(5) 
$$w_i = A/2$$
.

Substitution of (5) into (3) yields

(6) 
$$p_i = 3A/4$$
.

Therefore the sum of program fees is given by

(7) 
$$p_1 + p_2 = 3A/2$$
.

Therefore each programmer chooses a license fee of A/2 and the cable system charges a price of 3A/4 for each program. Consumers purchasing both programs pay a price of 3A/2.

# The Case of Bundling

Now suppose that the cable system bundles the two programs together. Once again, begin by considering the cable system's behavior at stage 2 if prices of  $w_1$  and  $w_2$  have been set at stage 1. The cable system is a monopolist facing the linear demand curve in (2) with costs given by  $w_1 + w_2$ . It is straightforward to calculate that the price and quantity chosen by the cable system are given by

(7) 
$$p_b = (2A + w_1 + w_2)/2.$$

(8) 
$$q_b = (2A - w_1 - w_2)/2B$$
.

Now consider the first stage. At the first stage we solve for a Nash equilibrium in license fees given that the each programmer faces the demand curve given by (8) at the second stage. It is straightforward to calculate that the Nash equilibrium has each programmer charge the license fee

(9) 
$$w_i = 2A/3$$
.

Substitution of (9) into (7) yields

(10) 
$$p_b = 5A/3$$
.

Therefore each programmer charges a price of 2A/3 and the price of the bundle of the programs is 5A/3.

## Conclusion

By comparing the two solutions, it is clear that license fees and retail prices are both lower when the programs are unbundled. Furthermore it is also straightforward to check that the cable system earns higher profits when the programs are unbundled. Therefore the cable system would prefer to offer each program separately and, furthermore, this makes consumers better off. This is because the upstream programmers are induced to charge lower license fees when the programs are unbundled.